FOREST PRACTICE COMMITTEE

PROBLEM STATEMENT:

"OAK WOODLANDS RESTORATION"

January 28, 2014

BACKGROUND

The Forest Practice Committee's consideration of this item was initiated by the Committee Chair in 2013. It is currently listed as a "Priority 1" item in the Committee's Priorities for 2014.

PUBLIC/RESOURCE PROBLEM TO BE ADDRESSED

The l~~L~~oss of oak woodlands ~~due~~ to conifer encroachment is widely recognized as a major conservation concern, and it has been ~~identified~~ documented in a number of research and other publications. The increased occupancy of oak woodlands by Douglas-fir ~~in Humboldt County is one example, but this condition~~ and other conifers has been reported ~~as occurring~~ throughout portions of California and the Pacific Northwest in multiple oak habitat types. Studies point to altered disturbance regimes, and the suppression of low-intensity fire in particular, as the primary cause of increased conifer establishment in oak woodlands. ~~Published research identifies at least one cause for this increased conifer occupancy as reduction in low intensity fires in oak woodlands.~~

Oak woodland habitat and the presence of oaks within forested landscapes are~~is~~ consistently identified in forest research as critically important for fulfilling wildlife needs and ~~-~~sustaining biodiversity in California. ~~Specific o~~Oak woodland structures and ecological ~~relationships~~associations ~~that~~ uniquely sustain or enhance wildlife populations~~,~~ and ~~-and~~ biodiversity, and are distinct from habitats within ~~are often not provided by dissimilar~~ coniferous forests. Many oak species also represent economically ~~or~~and culturally important resources within the state, both currently and historically. ~~in both historic and current periods.~~ The transition of oak habitat toward conifer dominance greatly affects these unique resources and values ~~provided by oak woodlands and oak species.~~, and results in social, economic, and ecological losses.

A 2011 report by the Northcoast Regional Land Trust on the status of oak woodlands in Humboldt County specifically identifies~~d succession~~ the increasing abundance of~~by~~ Douglas-fir in oak woodlands as~~,~~ "…a primary factor driving the loss of oak woodlands in Humboldt County." Among the ~~perceived~~ obstacles to enhancement or restoration of oak woodlands identified in the Land Trust report are the minimum post-harvest stocking requirements of Forest Practice Rule Sections 912.7, [932.7, 952.7]. As stated in the last paragraph on page 12 of the report:

Current policy within the California Forest Practice Rules (FPR 14 CCR § 912.7, 932.7, 952.7) requires the restocking of conifers after harvest, even if the goal of the harvest is to reduce conifer stocking in oak stands. This requirement may pose a significant obstacle to oak woodlands enhancement and restoration efforts on private lands, especially where landowners seek to recoup project costs through conifer log sales. A change in the California Forest Practices Rules to address this issue may help to facilitate the recovery of oak woodlands in the county.

Current policy also favors conifers over deciduous oaks through FPR 14 CCR 1100, Conversion of Timberland, where removal of conifers is prohibited from historical oak woodlands, and under the requirements of 912.7 (d), 932.7 (d), and 952.7 (d) to balance group A and B species harvests to meet maximum sustained productivity (913.11).

The scope of the conifer encroachment problem ~~does not appear to be~~is not limited to portions of the North Coast. According to the University of California Oak Woodland Conservation Workgroup (OWCW), conifer encroachment ~~may be~~is an issue throughout many portions of ~~the~~ interior and coastal ~~of~~ California.

The OWCW notes that lack of fire or other disturbances in upland valley oak and Oregon white oak stands in the Valley Oak Woodland and Coastal Oak Woodland vegetation types appears to be encouraging both Douglas-fir and pine species encroachment.

Scientific research and forest ecology literature also ~~point toward~~document conifer encroachment ~~occurrence~~ in portions of the Klamath, Southern Cascades, and Sierra Nevada ranges, encompassing both coastal and interior zones and primarily affecting deciduous oak species, including both Oregon white oak (*Q. garryana*) and California black oak (*Q. kelloggii*). Research consistently identifies Douglas-fir (*Pseudotsuga menziesii*) and white fir (*Abies concolor*) as species ~~which~~that dramatically increase ~~dramatically~~ in abundance in the absence of fire and consequently suppress or out-compete oaks within mixed or pure stands. This process may also include increases of other conifer species, including but not limited to~~:~~ pine, cedar, and juniper.

Removal of encroaching conifers has been shown to be effective in maintaining and/or restoring ~~existing~~ oak tree health and associated plant communities in Oregon white oak and California black oak woodlands. There is strong landowner interest in conifer removal (across the diameter classes) in the north coast and northern districts. Several incentive programs are encouraging landowners to restore these woodlands, including ~~through~~ the USFWS Partners Program and~~,~~ the USDA Environmental Quality Incentives Program (EQIP), and through California Department of Fish and Wildlife's Private Lands Management

approaches to wildlife conservation; however, the Forest Practices Rules are a barrier to the implementation of these programs.

OPTIONS TO ADDRESS PROBLEM

- **Monitor Problem and Promote Voluntary Conservation of Oak Woodlands:**
  Under this option, the Board would continue to monitor the status of reported conifer encroachment~~,~~ and efforts to treat the condition on the landscape. The Board could promote voluntary oak woodlands conservation and support funding of oak woodland restoration projects.

  Under current rules, c~~C~~oniferous material removed during voluntary projects may be limited to disposal by non-commercial means, as ~~presented~~noted ~~by~~in the 2011 report from the Northcoast Regional Land Trust,~~:~~ forgoing a potential project cost offset.

- **Review and Consideration of Forest Practice Rule Amendments:**
  Under this option, the Committee would review the requirements of Forest Practice Rules **Section 912.7, [932.7, 952.7] Resource Conservation Standards for Minimum Stocking** to identify potential impediments to oak woodland restoration. Upon identifying such impediments, the Committee could propose amendments to this and other rule sections within the limits of statutory authority.

  Using the "Aspen, Meadow, and Wet Area Restoration" special prescription, Section 913.4(e), [933.4(e), 953.4(e)] as a template, the Committee could create a similar prescription for oak woodlands restoration. The results of a poll conducted by the California Licensed Foresters Association (CLFA) indicate ~~some~~ solid interest in such a rule provision among~~st~~ Registered Professional Foresters (RPFs).

- **Promote Increased Use of Prescribed Fire:**
  Under this option, the Board would encourage and monitor use of prescribed fire in oak woodlands to reduce or prevent conifer encroachment.

  The u~~U~~se of prescribed fire in encroached oak woodlands is effective for culling ~~young~~small conifers (e.g., <~~10~~3-4 meters ~~years old~~ tall). However, w~~W~~here conifers are older and larger, mechanical removal of encroaching trees is generally necessary ~~before implementation of prescribed fire in order~~ to achieve desired effects. Also,~~, and~~ application of fire in ~~these conditions~~heavily encroached stands may inadvertently top-kill suppressed, low-vigor oaks. This option would, therefore, ~~address~~be effective in maintaining ~~enance of currently~~ un-encroached or early-

Comment [yv1]: Is it worth saying that some of the conifers are of merchantable size and by permitting the process it may help further incentivize the efforts?

Comment [yv2]: What does this mean? Is this in the form of conservation easements or is it active management? If just an easement, the conservation strategy would not arrest or slow the encroachment process unless active management was somehow required and guaranteed. Do note that restoration would still be prohibited by current rules.

Comment [yv3]: Also address the conversion of timberland issues and MSP?

Also I changed the interest to "solid" as 80% of the poll participants said they were likely to utilize the option if available. 80% seems more strong than "some" interest.

encroached woodlands, but it would be limited in its effect on late-encroached conditions where mechanical treatment is necessary.

NEXT STEPS

Further Assessment of Problem Scope:

- What is probable extent of problem—are all Forest Districts affected?
- What oak species are being affected? Which are most compromised by conifer encroachment? The deciduous species of *Q. garryana* and *Q. kelloggii* are recognized as affected.
- How does encroachment and oak conservation on private lands differ from potential solutions on public lands?

Field Trips to Review Examples of Conifer Encroachment and restoration treatments:

- R~~Bald Hills r~~estoration projects in the Bald Hills of Redwood National Park and on other public and private lands, Humboldt County.
- Numerous examples of ~~encouragement~~encroachment along highway 299 or 36. Many stages of encroachment and management are available here.
- Yosemite National Park restoration of California black oak sites?
- UC Berkeley Center for Forestry Blodgett Forest, which has ~~with~~ a long history of oak management efforts
- Northern and Southern Forest District sites?

Public Workshops to Solicit Comments on Options:

- Conduct focused workshops between meetings or continue to review item in regularly scheduled Forest Practice Committee meetings?

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